

Serial No. 09/903,792

April 2, 2003

Page 2 of 5

incorrect. Claims 5, 10, 15 and 20 recite that "the conductor pattern is **made** of photo-sensitive **conductive** paste" (emphasis added). As acknowledged by the Examiner, the conductor pattern "is fabricated from a photosensitive paste." Thus, Applicants respectfully submit that the conductor pattern is, in fact, "made of a photo-sensitive conductive paste", and thus, that claims 5, 10, 15 and 20 are clear and definite.

In addition, the Examiner alleged that the recitation in claims 11 and 16 of "forming a photo-sensitive conductive paste on a surface of a substrate" is vague and indefinite "because the conductive paste can be patterned in two distinct ways." However, there is absolutely no requirement in 35 U.S.C. § 112, second paragraph, which prohibits such a claim recitation. Claims 11 and 16 clearly and definitely recite the step of "forming a photo-sensitive conductive paste on a surface of a substrate". The fact that such a photo-sensitive conductive paste may be formed using various specific methods certainly does **NOT** render claims 11 and 16 indefinite.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 5, 10 and 11-20 under 35 U.S.C. § 112, second paragraph.

Claims 1, 6, 11 and 16 were rejected under 35 U.S.C. §103(a) as unpatentable over Applicants' Admitted Prior Art (AAPA) in view of Licari et al. (Hybrid Microcircuit Technology Handbook, 1998). Applicants respectfully traverse this rejection.

Claim 1 recites:

"A conductor pattern comprising:
a plurality of straight lines; and
a plurality of corners connected to the plurality of straight lines;
wherein a bottom surface cross-sectional width of the conductor
pattern is not larger than a top surface cross-sectional width thereof, and
**a bottom surface cross-sectional width of each of the plurality
of corners is larger than a bottom surface cross-sectional width of
each of the plurality of straight lines.**" (Emphasis added)

Claims 6, 11 and 16 recite features and method steps which are similar to the features recited in claim 1, including the emphasized features.

The Examiner acknowledged that AAPA fails to teach or suggest "designing the

Serial No. 09/903,792
April 2, 2003
Page 3 of 5

conductor cross-section." However, the Examiner alleged that Licari et al. teaches "the art of forming conductor patterns on ceramic substrates (p. 128 and Fig. 16). Adhesion tests and standard adhesion values are provided in Table 6 (p. 133). Stress concentrations at sharp corners of structures are conventionally reduced by designing curved segments." Thus, the Examiner concluded that it would have been obvious "to design conductors with cross-sections to withstand the stresses taught by Licari et al. in fabricating the conductors of an electronic component as revealed by [A]APA."

However, as is readily apparent from the Examiner's description of the rejection of claims 1, 6, 11 and 16 over AAPA in view of Licari et al., the Examiner has completely ignored specific features recited in these claims. Particularly, the Examiner failed to even address the feature of "a bottom surface cross-sectional width of each of the plurality of corners is larger than a bottom surface cross-sectional width of each of the plurality of straight lines" recited in the present claimed invention.

Licari et al. teaches nothing more than broad principles regarding microcircuit design, and certainly fails to teach or suggest any corner having a cross-sectional width that is larger than a cross-sectional width of straight line portions. In fact, the Examiner has failed to even allege that Licari et al. teaches "a bottom surface cross-sectional width of each of the plurality of corners is larger than a bottom surface cross-sectional width of each of the plurality of straight lines" as recited in the present claimed invention, and instead, the Examiner has simply alleged that "to design conductors with cross-sections to withstand the stresses taught by Licari et al. in fabricating the conductors of an electronic component as revealed by [A]APA" which clearly does NOT correspond to the features recited in the present claimed invention or render the present claimed invention obvious.

The PTO has the burden under 35 U.S.C. §103 to establish a prima facie case of obviousness. See In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787-88 (Fed. Cir. 1984). The PTO can satisfy this burden only by showing some objective

Serial No. 09/903,792
April 2, 2003
Page 4 of 5

teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1984). This it has not done. The Examiner failed to cite prior art that remedies the deficiencies of AAPA and Licari et al. or that suggests the obviousness of modifying AAPA and Licari et al. to achieve Applicant's claimed invention.

Instead, the Examiner improperly relied upon hindsight reconstruction of the claimed invention in reaching his obviousness determination. To imbue one of ordinary skill in the art with knowledge of the invention, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher. W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1543, 220 USPQ 303, 312-13 (Fed. Cir. 1983).

Prior art rejections must be based on evidence. Graham v. John Deere Co., 383 U.S. 117 (1966). Pursuant to MPEP 706.02(a), the Examiner is hereby requested to cite a reference in support of his position that it was well known at the time of Applicants' invention to provide a conductor pattern having a bottom surface cross-sectional width of each of the plurality of corners is larger than a bottom surface cross-sectional width of each of the plurality of straight lines as recited in the present claimed invention. If the rejection is based on facts within the personal knowledge of the Examiner, the data should be supported as specifically as possible and the rejection must be supported by an affidavit from the Examiner, which would be subject to contradiction or explanation by affidavit of Applicants or other persons. See 37 C.F.R. §1.104(d)(2).

In view of the foregoing remarks, Applicants respectfully submit that claims 1, 6, 11 and 16 are allowable. Claims 2-5, 7-10, 12-15 and 17-20 depend upon claims 1, 6, 11 and 16, and are therefore allowable for at least the reasons that claims 1, 6, 11 and 16 are allowable.